

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | | | |
|------------|---|------------------|---|-------------|
| Applicants | : | Nilsen, et. al. |) | Examiner: |
| | | |) | Ahmed Sefer |
| Serial No. | : | 10/728,128 |) | |
| | | |) | Art Unit: |
| Cnfrm. No. | : | 7639 |) | 2893 |
| | | |) | |
| Filed | : | December 4, 2003 |) | |
| | | |) | |
| For | : | LIGHT POLARIZER |) | |
| | | |) | |

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF KIRK W. STEIJN, UNDER 37 C.F.R. §1.132

I, Kirk W. Steijn, pursuant to 37 C.F.R. § 1.132, hereby declare:

1. I am currently an Optical Engineer at Reflexite Corporation in Avon, Connecticut. I have been employed in this capacity since 2003. From 1988 – 2003, I was employed as a Research Engineer at the DuPont Company in Wilmington, Delaware.

2. In 1981 I received a Bachelors of Science in Optical Engineering from University of Rochester in Rochester, New York. In 1984 I received a Master of Science in Optical Sciences from the University of Arizona in Tucson, Arizona. In 1986 I received a Ph.D. in Optical Sciences from the University of Arizona in Tucson, Arizona.

3. I have reviewed the Office Action dated July 23, 2010, in U.S. Patent Application No. 10/728,128. I am presenting this declaration to explain why a person of ordinary skill in the art would not conclude that U.S. Patent No. 4,842,824 to Ono ("Ono"), U.S. Patent No. 6,175,442 to Booth, et al. ("Booth"), or U.S. Patent No. 5,817,396 to Perlo, et al. ("Perlo"), disclose or teach an optical polarizer film or a surface providing polarization.

4. I understand that the United States Patent and Trademark Office ("PTO") has rejected claims 1, 11, 12, 27, and 34 under 35 U.S.C § 102(b) as being anticipated by Ono.

The PTO has also rejected claims 13, 36, and 37 under 35 U.S.C. § 102(b) as being anticipated by Ono. I have reviewed the Ono patent. Figures 1A – 1C of Ono show a Moth-Eye structure with a metal layer 11 provided on the protuberances. The metal layer 11 (col. 2, lines 60-66) is not capable of acting as a polarizer. The metal layer 11 is capable of absorbing laser light during the operation of recording the information, and the metal layer 11 is capable of reflecting laser light during the operation of reading the information. Furthermore, the laser light used in Ono's invention is already polarized, so there would be no apparent benefit to using an optical polarizing film in Ono's invention.

5. Ono discloses in column 3, lines 1-48, a metal layer 11 and a metal layer 24. Metal layer 11 absorbs laser light (col. 3, line 12) and cannot be substantially transparent at the same time when it absorbs laser light. Metal layer 24 (col. 3, lines 1-48) is selected from such metals as gold, platinum, aluminum, chromium, etc. and has a thickness of approximately 1000 Angstroms and would afford the layer a high reflectivity. Metal layer 24 therefore would not be substantially transparent and would be nonfunctional in the Ono invention if it were substantially transparent. Metal Layer 24 reflects laser light during the operation of reading the information from the medium.

6. I understand that the PTO has rejected claims 1, 11, and 34 under 35 U.S.C § 102(e) as being anticipated by Booth. The PTO has also rejected claims 13 and 36 under 35 U.S.C. § 102(b) as being anticipated by Booth. I have reviewed the Booth patent. Figures 2 and 3 of Booth do not show an optical polarizer film, and in fact Booth makes no reference to polarization anywhere in the patent. Furthermore, layer 20 and elements 24 are not arranged in a manner which would provide the function of a polarizer.

7. I understand that the PTO has rejected claims 12, 27 and 37 under 35 U.S.C. § 103 (a) as being unpatentable over Booth in view of Perlo. I have reviewed the Perlo patent and Perlo fails to teach or disclose a polarizer or a polarizing film. The layer 16 (col. 5, lines 34-40) of Perlo is specifically used to improve the absorption of light. This suggests that the layer 16 is not substantially transparent. Furthermore, the motivation suggested for combining Perlo with Ono as improving absorption is inapposite with the use of a substantially transparent coating.

8. In conclusion, none of the three patent references teach or disclose a polarizer or a polarizing film. Polarizers convert light that is of mixed polarization into a defined

polarization. None the inventions in the three patent references are capable of taking unpolarized light and converting it into a defined-polarization light.

9. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

October 20, 2010


Kirk W. Steijn